



Picoides arcticus

Washington Department of Wildlife Management Recommendations for Priority Species

Black-backed Woodpecker

RANGE: Boreal forests of North America, Cascade Mountains, and northern portions of the Sierra Nevada and Rocky Mountains.

WASHINGTON DISTRIBUTION:



HABITAT REQUIREMENTS:

East slope of the Cascade Mountains and coniferous forests to the east.

Black-backed woodpeckers inhabit lodgepole pine, ponderosa pine, and mixed conifer forests with a preference for mature and old growth stages and fire or insect damaged stands. They have a spotty distribution with populations responding to prey abundance. Since these woodpeckers feed on insects (mainly larvae of wood-boring beetles) they are particularly abundant in forests with old burns, blowdown areas, and insect infestations. They seek insects by chipping scaly bark from dead and dying trees (Short 1974).

Little is known about the ecology of this species. Two recent studies, following pine beetle outbreaks in northeast and central Oregon, provide more information.

Nesting - In northeast Oregon, on a managed (50 year old selective cut) ponderosa pine and mixed conifer forest, the black-backed woodpecker predominantly nested in ponderosa pine and lodgepole pine. The nest trees were tall (> 15 m or 50'), small diameter (< 50 cm or 20" dbh), and recently dead (< 5 yr) (Bull et al. 1986).

In the central Oregon mixed conifer and lodgepole pine forests, the black-backed selected for mature and old growth stands and nested exclusively in lodgepole pines. They avoided young stands and logged areas for both nesting and feeding. All nest trees, both live and dead, had heartrot and a mean dbh of 28 cm (11"). (Goggans et al. 1988).

Feeding - In northeast Oregon the black-backed woodpecker foraged in all four forest types in both live and dead trees. The trees averaged 19 m (62') in height with a dbh of 34 cm (13") and were dead less than two years. The larvae of pine beetles constituted 75% of the woodpeckers diet.

Foraging in central Oregon occurred in mature and old growth stands on live and dead trees, almost exclusively on beetle-infested lodgepole pine averaging 38 cm (15") dbh.

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Roosting - The woodpeckers roosted mainly in lodgepole pine in cankers, trunk scars, mistletoe clumps, or directly on the trunk. Again, they selected for mature and old growth with an average 40% canopy. The roost trees averaged 28 cm (11") in diameter and 20m (65') tall (Goggans et al. 1988).

Goggans et al. (1988) documented home ranges using radio telemetry. Three home ranges varied from a size of 72 ha (178 ac) to 328 ha (810 ac).

LIMITING FACTORS:

Availability of uncut old burns and insect damaged forests with numerous decayed snags.

MANAGEMENT RECOMMENDATIONS:

Mature and old growth lodgepole pine forest stands are declining throughout the Cascade Mountain range. They are being harvested because of infestations of pine beetles.

Forest management that "sanitizes" and maintains lodgepole pine forests in short rotation for young, disease-resistant tree crops, will prevent insects and heartrot. Unfortunately, it also will result in population declines of black-backed woodpeckers (Goggans et al. 1988).

Goggans et al. (1988) recommend the black-backed woodpecker rather than the three-toed woodpecker, as a management indicator species for mature and old growth lodgepole pine forests, because they use a wider elevation range and respond better to recordings used for monitoring.

To maintain maximum populations in managed stands, Neitro et al. (1985) recommend leaving 30 snags/100 ha (12/100 ac) > 43 cm (17") dbh.

Goggans et al. (1988) suggest that the traditional approach of managing cavity nesters, by retaining specific numbers of snags and green replacement trees, may not maintain viable populations of black-backed woodpeckers. It is unlikely that enough foraging substrate would be provided for this specialized feeder. They may require large areas of decadent, multi-layered older forests.

Further, Goggans et al. (1988) propose that Woodpecker Management Areas be withdrawn from commercial or salvage forestry and placed under special management to promote mature and old growth stand conditions. These management areas may be within existing or proposed reserve areas. They should encompass 387 ha (956 ac) of lodgepole pine or pine-dominated mixed conifer forest in mature or old growth condition. Some areas should be above and some below 1370 m (4500') elevation to accommodate pairs of three-toed woodpeckers as well. The size of the management area is based on home range size during abundant food supply and may need to be increased when prey populations decline.

In addition, forest succession after a fire should be allowed to proceed naturally, versus the practice of salvage and planting. Similarly, insect-infested trees and large blowdown areas should be left uncut or partially cut to provide habitat for these woodpeckers. Complete salvage eliminates both nesting and feeding habitat.

Woodpeckers, along with other insectivores, play an important role in reducing insect populations at endemic levels. Biological control of forest insects is preferred over use of insecticides. It has a longer term effect to regulate future insect outbreaks and is less costly. Management to increase

woodpecker populations should have the secondary benefits of increasing other insectivorous birds and controlling insect outbreaks (Takekawa et al. 1982).

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KEY POINTS

Habitat Requirements:

- Inhabit mature and old growth lodgepole pine, ponderosa pine, and mixed conifer forests with numerous standing dead trees.
- Most abundant in fire and insect-infested stands.
- Forage on insects, mainly beetles, in pole and small sawtimber-sized snags.

Management Recommendations:

- For harvested areas, retain 12 snags > 17" dbh/100 ac.
- Establish Woodpecker Management Areas of approximately 1000 ac within existing or proposed forest reserves. The areas should be in lodgepole pine or pine-dominated forest above and below 4500'.
- Limit insecticide use and promote biological control of insects.